



Complete Summary

TITLE

Acute myocardial infarction: percent of patients who expired during hospital stay.

SOURCE(S)

Specifications manual for national hospital quality measures, version 1.04.
Centers for Medicare and Medicaid Services (CMS), Joint Commission on
Accreditation of Healthcare Organizations (JCAHO); 2005 Aug. various p.

Measure Domain

PRIMARY MEASURE DOMAIN

Outcome

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure* is used to assess the percent of acute myocardial infarction (AMI) patients who expired during hospital stay.

*This is a JCAHO only measure.

RATIONALE

Mortality of patients with acute myocardial infarction (AMI) represents a significant outcome potentially related to quality of care. This rate-based indicator identifies an undesirable outcome of care. High rates over time may warrant investigation into the quality of care provided.

PRIMARY CLINICAL COMPONENT

Acute myocardial infarction (AMI); inpatient mortality

DENOMINATOR DESCRIPTION

Acute myocardial infarction (AMI) patients (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Inpatient mortality of acute myocardial infarction (AMI) patients

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Collaborative inter-organizational quality improvement
Internal quality improvement
Pay-for-performance

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Each year 900,000 people in the United States (U.S.) are diagnosed with acute myocardial infarction (AMI); of these, approximately 225,000 cases result in death and, it is estimated that an additional 125,000 patients die before obtaining medical care.

EVIDENCE FOR INCIDENCE/PREVALENCE

American College of Cardiology, American Heart Association Task Force on Practice Guidelines, Committee on Management of Acute Myocardial Infarction. Ryan TJ, Antman EM, Brooks NH, Califf RM, Hillis LD, Hiratzka LF, Rapaport E, Riegel B, Russell RO, Smith EE III, Weaver WD. ACC/AHA guidelines for the management of patients with acute myocardial infarction: 1999 Update. Bethesda (MD): American College of Cardiology (ACC), American Heart Association (AHA); 1999. Various p.

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Cardiovascular disease, including acute myocardial infarction (AMI), is the leading cause of death in the United States (U.S.).

EVIDENCE FOR BURDEN OF ILLNESS

French WJ. Trends in acute myocardial infarction management: use of the National Registry of Myocardial Infarction in quality improvement. Am J Cardiol 2000 Mar 9;85(5A):5B-9B; discussion 10B-12B. [PubMed](#)

UTILIZATION

Cardiovascular disease, including acute myocardial infarction (AMI), is the primary disease category for hospital patient discharges.

EVIDENCE FOR UTILIZATION

French WJ. Trends in acute myocardial infarction management: use of the National Registry of Myocardial Infarction in quality improvement. Am J Cardiol 2000 Mar 9;85(5A):5B-9B; discussion 10B-12B. [PubMed](#)

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Discharges, 18 years and older, with a principal diagnosis of acute myocardial infarction (AMI)

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Discharges with an International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code for acute myocardial infarction (AMI) as defined in Appendix A of the original measure documentation

Exclusions

- Patients less than 18 years of age
- Patients transferred to another acute care hospital or federal hospital

- Patients received in transfer from another acute care hospital
- Patients discharged to hospice

Note: The measure population does not include deaths that occurred in the emergency department.

DENOMINATOR (INDEX) EVENT

Clinical Condition
Institutionalization

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Inpatient mortality of acute myocardial infarction (AMI) patients

Exclusions
None

NUMERATOR TIME WINDOW

Institutionalization

DATA SOURCE

Administrative and medical records data

LEVEL OF DETERMINATION OF QUALITY

Not Individual Case

OUTCOME TYPE

Clinical Outcome

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a lower score

ALLOWANCE FOR PATIENT FACTORS

Risk adjustment devised specifically for this measure/condition

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure is adjusted for risk factors. Refer to Appendix B of the original measure documentation for risk factor definitions.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

The core measure pilot project was a collaboration among the Joint Commission, five state hospitals associations, five measurement systems, and 83 hospitals from across nine states. Participating hospitals collected and reported data for acute myocardial infarction (AMI) measures from December 2000 to December 2001.

Core measure reliability visits were completed the summer of 2001 at a random sample of 16 participating hospitals across 6 states.

Preliminary data gathered from the pilot test show a mean measure rate of 0.09% for this measure.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). A comprehensive review of development and testing for national implementation of hospital core measures. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 40 p.

Identifying Information

ORIGINAL TITLE

AMI-9: inpatient mortality.

MEASURE COLLECTION

[National Hospital Quality Measures](#)

MEASURE SET NAME

[Acute Myocardial Infarction](#)

SUBMITTER

Centers for Medicare & Medicaid Services
Joint Commission on Accreditation of Healthcare Organizations

DEVELOPER

Centers for Medicare and Medicaid Services/Joint Commission on Accreditation of
Healthcare Organizations

ENDORSER

National Quality Forum

ADAPTATION

Measure was adapted from another source.

PARENT MEASURE

Intrahospital mortality of patients with a principal discharge diagnosis of acute
myocardial infarction (AMI) (The MEDSTAT Group, Inc.)

RELEASE DATE

2000 Aug

REVISION DATE

2005 Aug

MEASURE STATUS

Please note: This measure has been updated. The National Quality Measures
Clearinghouse is working to update this summary.

SOURCE(S)

Specifications manual for national hospital quality measures, version 1.04.
Centers for Medicare and Medicaid Services (CMS), Joint Commission on
Accreditation of Healthcare Organizations (JCAHO); 2005 Aug. various p.

MEASURE AVAILABILITY

The individual measure, "AMI-9: Inpatient Mortality," is published in
"Specifications Manual for National Hospital Quality Measures." This document is

available from the [Joint Commission on Accreditation of Healthcare Organizations \(JCAHO\) Web site](#). Information is also available from the [Centers for Medicare & Medicaid Services \(CMS\) Web site](#). Check the JCAHO Web site and CMS Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

COMPANION DOCUMENTS

The following are available:

- A software application designed for the collection and analysis of quality improvement data, the CMS Abstraction and Reporting Tool (CART), is available from the [CMS CART Web site](#). Supporting documentation is also available. For more information, e-mail CMS PROINQUIRIES at proinquiries@cms.hhs.gov.
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). A comprehensive review of development and testing for national implementation of hospital core measures. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 40 p. This document is available from the [JCAHO Web site](#).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Attributes of core performance measures and associated evaluation criteria. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 5 p. This document is available from the [JCAHO Web site](#).

NQMC STATUS

This NQMC summary was completed by ECRI on December 27, 2002. The information was verified by the Joint Commission on Accreditation of Healthcare Organizations on January 17, 2003. This NQMC summary was updated by ECRI on October 6, 2005. The information was verified by the measure developer on December 12, 2005.

COPYRIGHT STATEMENT

The Specifications Manual for National Hospital Quality Measures [Version 1.04, August, 2005] is the collaborative work of the Centers for Medicare & Medicaid Services and the Joint Commission on Accreditation of Healthcare Organizations. The Specifications Manual is periodically updated by the Centers for Medicare & Medicaid Services and the Joint Commission on Accreditation of Healthcare Organizations. Users of the Specifications Manual for National Hospital Quality Measures should periodically verify that the most up-to-date version is being utilized.

© 2006 National Quality Measures Clearinghouse

Date Modified: 9/25/2006

